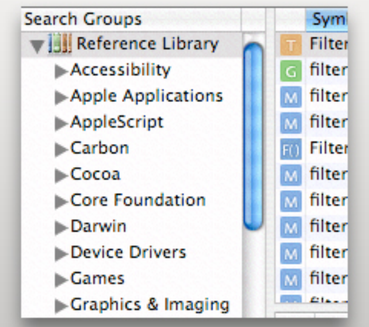
# AppleScript Studio in Depth

## Session 406

These are confidential sessions—please refrain from filming or taking pictures.



**Development Tools**

# AppleScript Studio in Depth

**Tim Bumgarner**
Senior Software Engineer

http://developer.apple.com/wwdc2005/

# Agenda

- Introduction
- Hands-on Project
- More information
- Q&A

# Introduction

http://developer.apple.com/wwdc2005/

# Why Use AppleScript Studio?

- Easier approach to creating Mac OS X applications
  - Automatic memory management
  - Rapid prototyping
  - Coexists well with other supported languages
- Common uses

Add Mac OS X front-end to Unix tools

Build application that controls one or more other applications

Put a face on existing scripts

Create Automator actions!

# Hands-On Format

- Session materials
  - Pre-built project for each step
    - Use Xcode 2.0 or 2.1
  - Detailed outline with all script source
- Options
  - Build application with me
  - Follow along in current milestone or completed project
  - Just watch me now and experiment later

# Hands-On Project

http://developer.apple.com/wwdc2005/

# ScriptView Step 0

## The final product

http://developer.apple.com/wwdc2005/

# ScriptView

## Script editor with a built-in database

- AppleScript Studio features we'll use
  - Improved in Tiger
    - Data representation
    - Table View with Data Source support
  - New in Tiger
    - Toolbar support
    - Target/action support
    - OSAKit
- Xcode features we'll use
  - AppleScript debugger
    - Breakpoint actions (new in Xcode 2.1)

# Hands-On: ScriptView Step 0

## The final product

http://developer.apple.com/wwdc2005/

# ScriptView Step 1

## Build user interface

http://developer.apple.com/wwdc2005/

# What You Will Do in Step 1

- Create a new AppleScript document-based application project
- Build ScriptView's user interface
- Connect the controller object to user interface elements
- Build and run the application

# Hands-On: ScriptView Step 1

## Build user interface

http://developer.apple.com/wwdc2005/

# What You Learned in Step 1

- How to create a new AppleScript document-based application project
- How to build its user interface
- How to connect a controller object to user interface elements
- How to build and test the application

# ScriptView Step 2

## Add toolbar

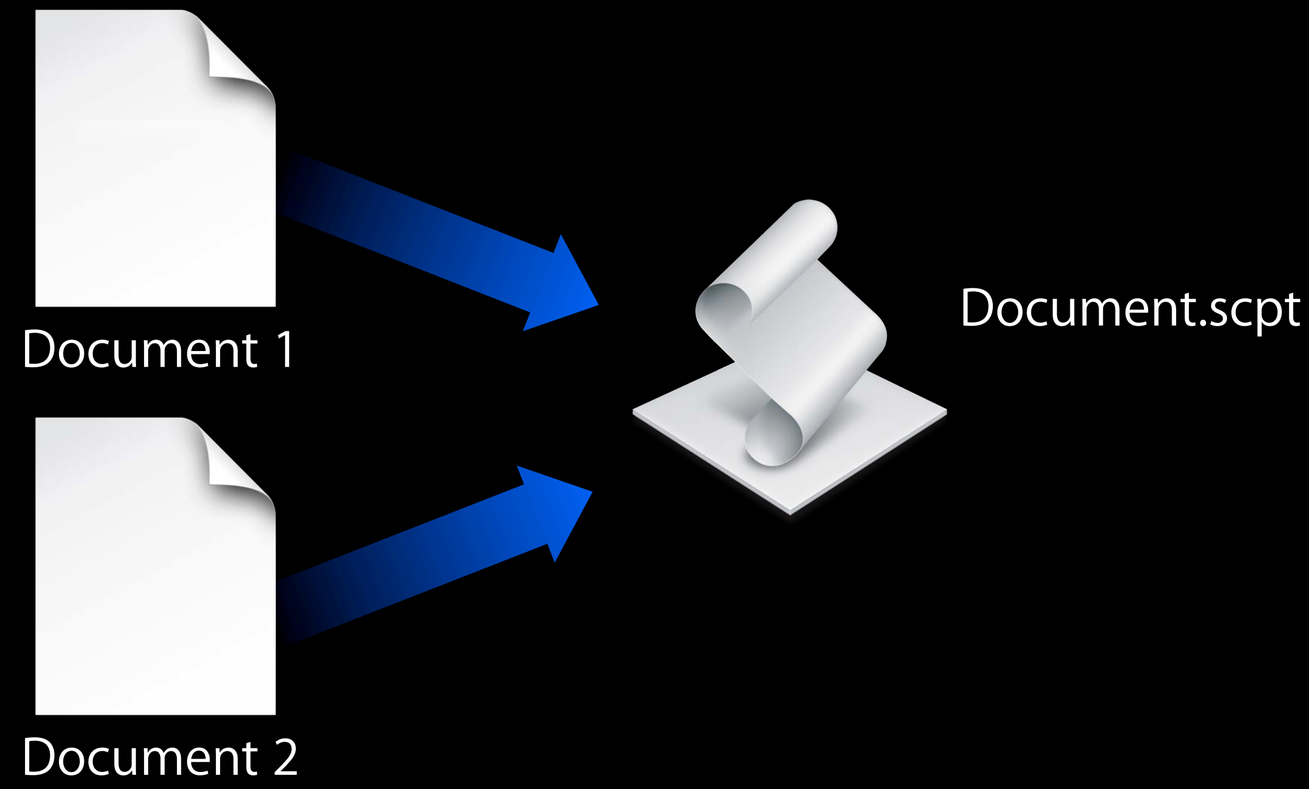
http://developer.apple.com/wwdc2005/

# What You Will Do in Step 2

- Add icon resources to the project
- Add an `awake from nib` handler to the document window
- Create a toolbar and toolbar items
- Use a “Nib” script scope

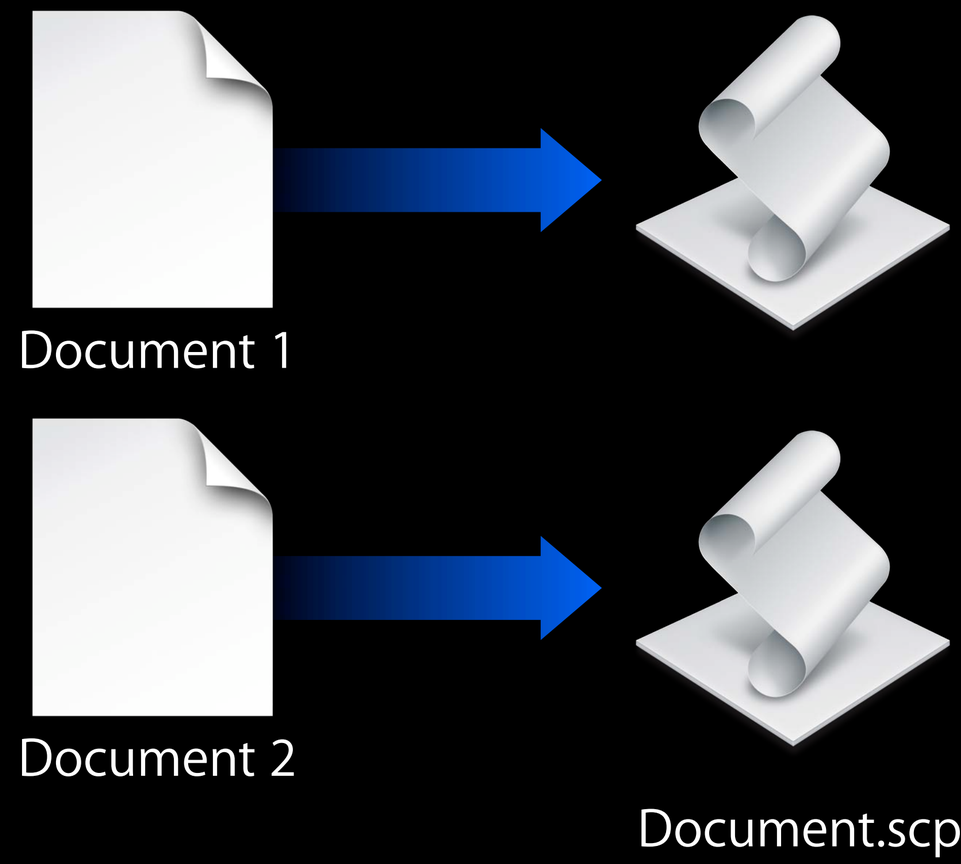
# What Is a “Nib” Script Scope?

- A script can be attached to any object as
  - Global



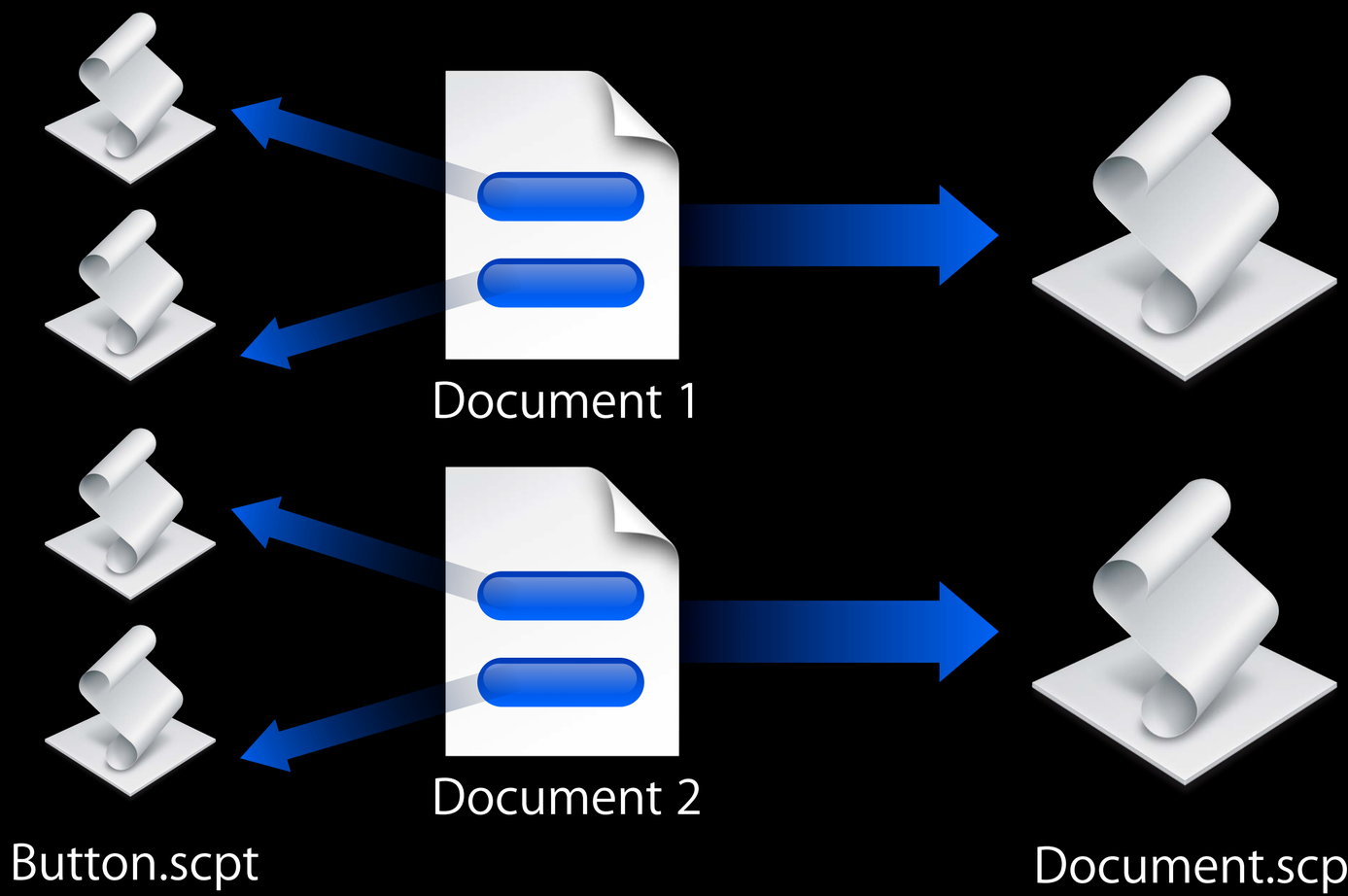
# What Is a “Nib” Script Scope?

- A script can be attached to any object as
  - Global
  - Nib



# What Is a “Nib” Script Scope?

- A script can be attached to any object as
  - Global
  - Nib
  - Local



# Hands-On: ScriptView Step 2

## Add toolbar

http://developer.apple.com/wwdc2005/

# What You Learned in Step 2

- How to add icon resources to the project
- How to add an `awake from nib` handler to the document window
- How to create a toolbar
- How to use different script scopes

# ScriptView Step 3

## Connect remaining toolbar buttons

## Add data source for table view

http://developer.apple.com/wwdc2005/

# What You Will Do in Step 3

- Modify the `awake from nib` handler
- Add a `clicked toolbar item` handler to the window
- Add a `selection changed` handler to the table view
- Connect a data source to the table view

# Hands-On: ScriptView Step 3

## Connect remaining toolbar buttons

## Add data source for table view

http://developer.apple.com/wwdc2005/

# What You Learned in Step 3

- How to implement the remaining toolbar buttons
- How to connect a data source to a table view

# ScriptView Step 4

## Document saving

## Table view column sorting

http://developer.apple.com/wwdc2005/

# What You Will Do in Step 4

- Implement `data representation` handlers
- Add table view column sorting support
  - Add `column clicked` handler
  - Add sort indicators

# Hands-On: ScriptView Step 4

## Document saving

## Table view column sorting

http://developer.apple.com/wwdc2005/

# What You Learned in Step 4

- How to implement `data representation` handlers for the document window
- How to add table column sorting support

# ScriptView Step 5

## Debug ScriptView

## Add Creator Code

http://developer.apple.com/wwdc2005/

# What You Will Do in Step 5

- Debug ScriptView using the AppleScript debugger
  - Add breakpoint actions
- Add ScriptView creator code

# Hands-On: ScriptView Step 5

## Debug ScriptView

## Add Creator Code

http://developer.apple.com/wwdc2005/

# What You Learned

- AppleScriptKit
  - Table views, data sources, and toolbars
- OSAKit
  - OSAScriptView, OSAScriptController
- Interface Builder
  - Build the user interface
  - Connect a controller object to user interface elements
  - Add handlers to user interface elements
- Xcode
  - Create a new document-based AppleScript Studio application
  - Implement event handlers
  - Build and run the application
  - Debug the application

# More Information

http://developer.apple.com/wwdc2005/

# Documentation, Sample Code, and Other Resources

http://developer.apple.com/wwdc2005/

# Related Sessions

| | |
|---|---|
| Automator Action Development Lab | Application Tech Lab<br>Friday 10:30AM |
| AppleScript Studio Lab | Application Tech Lab<br>Friday 12:00PM |

# Who to Contact


**Sal Soghoian**
AppleScript and Automator Product Manager
sal@apple.com

**Todd Fernandez**
AppleScript and Automator Engineering Manager
trf@apple.com


**AppleScript Studio Developers**
Mailing List
applescript-studio@lists.apple.com

# Q&A

**John Montbriand**
DTS
dts@apple.com

http://developer.apple.com/wwdc2005/

# WWDC2005

Worldwide Developers Conference